

Amendments to the Claims (this listing replaces all prior versions):

1. **(Currently Amended)** In a data storage system that stores both database records and ancillary data ~~other than database records~~, a method for processing a request from a host to write a database record, ~~as distinct from data other than a database record~~, to a target location on a logical device associated with a data-storage system in data communication with the host, the logical device having ~~certain~~ a first set of extents ~~that have been~~ designated for storage of database records and ~~certain other~~ a second set of extents ~~that have been~~ designated for storage of ancillary data ~~other than database records~~, the method comprising:

maintaining, at the data storage system, information for distinguishing between ~~extents of the logical device that are designated for storage of database records and extents of the logical device that are designated for storage of data other than database records~~ the first set of extents and the second set of extents; and

based on the ~~basis of the~~ information, determining

that the target location is on an extent that is designated for storage of a database record, and

that the target location is not on an extent that is designated for storage of ancillary data ~~other than database records~~

~~whereby the database record is written only to an extent that is designated for storage of a database record, and~~

whereby the database record is not written to an extent that is designated for storage of ancillary data ~~other than a database record~~.; and

writing the database record only to an extent that is designated for storage of a database record.

2. **(Currently Amended)** The method of claim 1, wherein maintaining information for distinguishing between the first set of extents designated for storage of database records and the second set of extents designated for storage of data other than database records comprises maintaining an extent table having extent table entries identifying properties associated with the extent,

wherein the properties depend at least in part on whether the extent is designated for storage of a database record and not designated for storage of ancillary data other than a database record.

3. **(Currently Amended)** The method of claim 2, further comprising selecting the properties to include information identifying a set of data verification steps to be carried out when data is written into the extent,

wherein the data verification steps depend on whether the extent is designated for storage of database records or for storage of ancillary data other than database records.

4. **(Currently Amended)** The method of claim 1, further comprising identifying the logical device to be a logical device designated for storage of database records and not a logical device designated for storage of ancillary data other than database records.

5. **(Currently Amended)** The method of claim 1, further comprising identifying a set of data verification steps to be carried out in connection with writing data to an extent

wherein the set of data verification steps depends on whether the extent is designated for storage of database records or for storage of ancillary data other than database records.

6. **(Currently Amended)** The method of claim 5, further comprising carrying out the data verification steps,  
  
wherein the data verification steps depend on whether the extent is designated for storage of database records or for storage of ancillary data ~~other than database records~~.
7. **(Currently Amended)** The method of claim 1, wherein determining whether the target location is on an extent that is designated for storage of a database record and that the target location is not on an extent that is designated for storage of ancillary data ~~other than database records~~ comprises determining that the target location is contained completely within an extent, wherein a target location that is not contained completely within an extent is indicative of a target location being on an extent that is designated for storage of ancillary data ~~other than database records~~.
8. **(Currently Amended)** The method of claim 3, wherein determining that the target location is on an extent that is designated for storage of a database record, and that the target location is not on an extent that is designated for storage of ancillary data ~~other than database records~~ comprises determining that the target location is contained completely within one or more extents, all of which share the same data verification steps.
9. **(Previously Presented)** A method of processing an I/O request to access a storage device having a plurality of extents defined thereon, each of the extents having a corresponding set of processing instructions associated therewith, the method comprising:  
  
receiving an I/O request having an associated target location on the storage device;

identifying an extent set associated with the target location, the extent set having at least a first extent and a second extent, each of the first and second extents having its own associated processing instructions;

determining that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent;

executing the I/O transaction;

executing the processing instructions associated with the first extent;  
and

executing the processing instructions associated with the second extent.

10. **(Original)** The method of claim 9, wherein receiving an I/O request comprises receiving a write request.
11. **(Previously Presented)** The method of claim 10, further comprising selecting the processing instructions to include instructions for verifying that the writing of the data to the target location was carried out successfully.
12. **(Previously Presented)** The method of claim 9, wherein determining that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent comprises determining that none of the extents associated with the target location overlap with each other.
13. **(Previously Presented)** The method of claim 9, wherein determining that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent comprises determining that the first and second extents overlap, and that the processing instructions associated with the overlapping first and second extents are compatible.

**14. (Previously Presented)** A data-storage system comprising:

a logical device having a plurality of extents defined thereon, each of the extents having a corresponding set of processing instructions associated therewith,

the logical device having

a first extent having an associated first set of processing instructions, and

a second extent having an associated second set of processing instructions;

wherein the first set of processing instructions includes instructions that are different from instructions in the second set of processing instructions; and

information identifying each extent on the logical device and the processing instructions associated with that extent.

**15. (Original)** The system of claim 14, wherein the information identifying each extent comprises an extent table having an extent table entry corresponding to an extent on the logical device.

**16. (Currently Amended)** A computer-readable medium having encoded thereon software for causing a data storage system that stores both database records and data other than database records to process a request from a host to write a database record to a target location on a logical device associated with a data-storage system in data communication with the host, the logical device having certain a first set of extents that have been designated for storage of database records and certain other a second set of extents that have been designated for storage of data other than database records, the software comprising instructions that, when executed, cause a computer to:

maintain, at the data storage system, information for distinguishing between the first set of extents of the logical device that are designated for storage of database records and the second set of extents of the logical device that are designated for storage of data other than database records; and

based on the ~~basis of the~~ information, determine

that the target location is on an extent that is designated for storage of a database record, and

that the target location is not on an extent that is designated for storage of ancillary data ~~other than database records~~

whereby the database record is written only to an extent that is designated for storage of a database record, and

whereby the database record is not written to an extent that is designated for storage of ancillary data ~~other than a database record~~.

17. **(Previously Presented)** A computer-readable medium having encoded thereon software for processing an I/O request to access a storage device having a plurality of extents defined thereon, each of the extents having a corresponding set of processing instructions associated therewith, the software including instructions that, when executed, cause a computer to:

receive an I/O request having an associated target location on the storage device;

identify an extent set associated with the target location, the extent set having at least a first extent and a second extent, each of the first and second extents having its own associated processing instructions;

determine that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent;

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execute the I/O transaction;

execute the processing instructions associated with the first extent; and

execute the processing instructions associated with the second extent.